XVI. Abstract of a Register of the Barometer, Thermometer, and Rain, at Lyndon in Rutland; by Thomas Barker, Esq. Also of the Rain in Hampshire and Surrey. Communicated by Thomas White, Esq. F.R.S.

Read April 30, 1789.

1788.

		Barometer.			Thermometer.					Rain.				
	-	Higheft	Lowest.	M ean.	1.	ne Ho	8		broad		Lyndon	Surrey. S.Lam- beth.		pfhire.  Fyfield.
		Inches.	Inches.	Inches.	0	ø	٥	٥	o	0	Inch.	Inch.	Inch.	Inch.
	Morn. Aftern.	30,13	28,37	29,50	44 44	34 35	40 40 <u>1</u>	45 49	$23^{\frac{1}{2}}$	36 41	0,970	0,68	1,60	1,10
Feb.	Morn. Aftern.	29,77	28,25	29,14	45 45	35 37	40½ 41	44 48	27½ 30	36 42	2,667	2,09	3,37	2, 6
Mar.	Morn. Aftern.	29,65	28,84	29,23	$\frac{51}{5^2\frac{1}{2}}$		40 41	50 63	22 31	3 <b>5</b> 43	1,072	0,64	1,31	1,36
Apr.	Morn. Aftern.	30,02	28,94	29,59	56 60	$42\frac{1}{2}$ $43\frac{1}{2}$	50 51	54 68½	35 40	45½ 56	0,588	0,47	0,61	0,50
May	Morn. Aftern.	29,92	29,19	29,60	72	51 53	<b>5</b> 8	64 82	43 <sup>1</sup> / <sub>2</sub> 51	66	1,517	0,81	0,76	0,28
June	Morn. Aftern.	29,85	29,10	29,52	09	571/2	60 61	64½ 82½	50 58	56 67	0,608	1,94	1,27	1,36
July	Morn. Aftern.	29,78	29,21	29,52	67물 70	58 59½	62 63½	70 <u>1</u> 83	51 58	59 72	1,795	1,84	3,58	1,81
Aug.	TALCOLAL	30,01	28,88	29,49	68 70½	57½ 59	$61\frac{1}{2}$	77	54 62	56 68	2,780	4,30	3,22	3,40
Sept.	LILCOLIL	29,80	29,00	29,40	66 66 <u>‡</u>	521	58½ 59	$61\frac{1}{2}$ $75\frac{1}{2}$	42 50	52 63	2,430	3,81	5,71	3,78
Oa.	Morn. Aftern.	30,15	29,15	29,68	59 60	46	52 53	57 66	32 45	46 54₹	1,412	0,08	0, 0	0,03
Nov.	Antem,	30,01	29,06	29,62	53 53	37 37 ½	45	51½ 58	$25^{\frac{1}{2}}$	39 45	0,453	0,62	0,86	0,74
Dec.	Morn. Aftern.	29,85	29,12	29,47	39 40½	27	$\begin{vmatrix} 34 \\ 34^{\frac{1}{2}} \end{vmatrix}$	40½	15	27	0,890	0,00	0,21	0,42
Inches												17,28	22,50	16,84

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THE year began open and mild, at first showery, afterward drier and stormy. The chief part of February was wet, but more fo for frequency-than quantity. After a few mifty days there came in March above a fortnight's sharp frost, the longest this winter, and with fevere east winds cut things more than all the winter before, which was in general an open one. The last twelve or thirteen days of March the spring set in pleafant, and continued forwarding all April, and proved a very dry fpring. There were at times this year fits of exceeding hot weather, the end of April, the fourth week in May, the third in June, and fecond in July; but so much windy weather, with hot fun and cold winds, that bees which were forward the beginning of May, and some few swarms so early, seemed backwarder again at the end of the month. The grafs was every where short, and began to burn; but a fine rain at the end of May strengthened the grain very much, and made the grafs grow in fome degree; but it foon began to burn again in a dry June, with almost constant north and north-east winds, fo that the pasture was short, and very little hay.

The end of June, and two-thirds of July, were very frequent showers and wind. There were in some parts of England very heavy thunder-storms, and more rain than they wished for in hay time. The showers were light here; they made the grain ear well, pease and beans set thick, and brought the turnips past the fly. The grass also grew in some degree, but burnt again before July was out, and more in August, of which the first ten days were dry; but the showery latter part made the grass grow considerably, which was much wanted, and did not much hinder the harvest, which was in general well got, and was good. The autumn was very fine, and so much rain in one month, especially the third week in September, that there

was more grass after that than there had been any part of the fummer before, though not fuch quantities as there fometimes is; for, take the year throughout, I think I never knew less. But that was not the case in all parts of England: I believe it was in general a dry fummer every where; but in some places there was a great deal of grafs at times. So great a fruit year of most forts, garden, orchard, and wild, I think, I hardly ever knew. After the first week in October it was dry again, and so fine, mild, and clear of frosts, that the nasturtiums were not cut off till after the middle of November; and the ground and roads continued dry till the fnow at Christmas, and there was in many places great want of water fo late in the year. Most part of the last week in November, and the first third part of December, was a gentle frost; but then it set in very fevere, and, except an imperfect thaw the 24th and 25th, has been an uncommonly cold and hard frost, freezing over many of the rivers, with a confiderable fnow at times, chiefly the 26th and 27th, and continued to the end of the year, and beyond it.

## Account of a sinking-in of the ground.

In a wet season, about Christmas 1787, a piece of apparently sound ground on the north side of a moderate hill, a mile and half south-west from Ketton in Rutland, sunk down into the earth, leaving a great hollow. The ground was smooth before, and a waggon had lately gone over the place. There was nobody by when it sell in; but a labourer going home from his work was the first person who sound it.

It was some time after the accident before I heard of it, and

it was in spring time that I went to see it. I then sound it to be an oval hole, sive yards over one way, and sour another, and about sour yards deep in the middle; but some of the earth having lodged against the sides of the pit, it was not so deep there; yet the oval must upon the whole have sunk down about three yards, and gone directly downward, for the sides of the pit are lest perpendicular. I sound a little water at the bottom of the pit, and was told there had been a great deal more at first. The bottom half of the pit is a blue clay, and from a foot to a yard thick at the top is a stiff earth mixed with stones. There were plain signs that a drain from the ground above had in wet times run down near where the pit now is; some of it probably ran into and under the ground, and had, in a course of time, undermined it; and that seems to have been the reason that the pit sunk in as it has done.

A man of Ketton, who has freestone pits in the same lord-ship, but on the opposite side of the town, says, he sometimes meets with beds of clay in his pits, which are undermined, and have hollows in them. And to the northward of these stone pits there are many hollows, which they call the Swallow-pits; because, being hollow underneath, no water will lie in them, but runs through holes into the ground. These swallow-pits I know, and they seem to be clay at top; and he says, they do not appear to have been ever dug by men, but that the surface of the ground has sunk down into the hollow there was beneath it.